

CURRENT VAMAS PROJECTS

Project Number Project Title

TWA 1 - Wear Test Methods

- 01 Compilation of Wear Test Standards
- 02 Ball Cratering Wear Testing
- 03 Wear Debris Characterization Methods and Representation [with TWA 7]

TWA 2 - Surface Chemical Analysis

- 02 Development of Calibration Data for the Energy Scales of Auger-electron spectrometers
- 03 Procedures for Quantitative X-ray Photoelectron Spectroscopy
- 05 Development of Reference Materials Prepared by Ion Implantation
- 09 Intercomparison of Auger Electron Intensity Measurements
- 13 Tests of algorithms for Data Processing in AES - Factor Analysis and Intensity
- 14b Tests of Algorithms for Background Subtraction in AES
- 14c Tests of algorithms for Quantitative XPS by Peak Shape Analysis
- 14d Tests of Algorithms for Angle-resolved XPS
- 21 Tests of Algorithms for the Analysis of Multicomponent Spectra in XPS
- 23 Absolute Calibration of XPS Instrument Intensity Scales
- 30 Development of a Common Data Processing System for AES and XPS
- A1 Use of the Infinite Velocity Method for SIMS Quantification
- A2 Evaluation of Static Charge Stabilization and Determination Methods in XPS on Non-conducting Samples
- A3 Interlaboratory Study of Static SIMS Repeatability and Reproducibility
- A4 Evaluation of Multilayer Reference Coatings for Quantitative GDOES Depth Profiling
- A5 Interlaboratory Study of the Degradation of Organic Materials in XPS Analysis
- A6 Evaluation of Uncertainties in XPS Peak Intensities Associated with Different Techniques & Procedures for Background Subtraction

TWA 3 – Ceramics for Structural Applications

- 12 Fracture Toughness by the SEVNB Method
- 13 High Temperature Flexural Strength
- 14 Determination of Phase Composition and Percent Crystallinity in Hydroxyapatite

TWA 5 – Polymer Composites

- 01 Assessment and Recommendation to ISO on Mode II
- 02 Measurement of Mechanical Properties for the Fibre-Matrix Interface

TWA 7 - Biomaterials

- 01 Evaluation of Cytotoxicity of UHMWPE Wear Debris {with TWA 1}

TWA 10 – Computerized Materials Data

- 01 STEP Terminology Review
- 02 Generic Data-Sharing Platform

TWA 13 – Low Cycle Fatigue

- 01 Quantifying Data Uncertainties and Validation of a Code of Practice for the Meas. of Bending in Uniaxial Fatigue Test Pieces

TWA 15 – Metal Matrix Composites

- 01 Develop Reliable Tensile Test and Fatigue Test Methods for MMC's at Room & Elevated Temperatures - SiCw/A2009 MMC
- 02 Develop Reliable Tensile Test and Fatigue Test Methods for MMC's at Room & Elevated Temperatures - SiC/Ti-15-3 MMC
- 03 Develop Reliable Tensile Test and Fatigue Test Methods for MMC's at Room & Elevated Temperatures - Al 2O3/Al MMC

TWA 16 – Superconducting Materials

- 01 Bending Strain Effects on Critical Current in Oxide Superconductors
- 02 Measurement Method of Critical Temperature in Oxide Superconductors
- 03 Measurement Methods for Trapped Field and Levitation Force in Bulk Oxide Superconductors
- 04 Measurement Methods for the Surface Resistance in thin Film Superconductors
- 05 Measurement Method for the Irreversibility Field in Oxide Superconductors

TWA 17 – Cryogenic Structural Materials

- 01 Interlaminar Shear Test on GFRP
- 02 Mechanical Tests in High Magnetic Field
- 03 Advanced Fracture Toughness Test

TWA 20 – Measurement of Residual Stress

- 01 Measurement of Residual Stress by Neutron Diffraction

TWA 21 – Mechanical Measurements for Hardmetals

- 01 Bend Testing of Hardmetals
- 02 Toughness Tests for Hardmetals
- 03 Hardness Tests for Hardmetals

TWA 22 – Mechanical Property Measurements of Thin Films and Coatings

- 01 Measurement of Hardness and Young's Modulus of Thin Coatings Using Depth Sensing indentation Instruments
- 02 Adhesion of Thin Coatings

TWA 23 – Thermal Properties of Thin Ceramic Films and Coatings

01 Thermal Conductivity of Ceramic Films

TWA 24 – Performance Related Properties for Electroceramics

01 Measurement of Piezoelectric Coefficient of Materials of Differing Geometries and Configurations

TWA 25 – Creep/Fatigue Crack Growth in Components

01 Creep/Fatigue Crack Growth in Components

TWA 27 – Characterization Methods for Ceramic Powders & Green Bodies

01 Determination of Coarse Particle Fraction in Ceramic Powders